

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

Zyrcuits IP LLC,

Plaintiff,

v.

Civil Action No. 20-1306-CFC

Acuity Brands, Inc.,

Defendant.

Zyrcuits IP LLC,

Plaintiff,

v.

Civil Action No. 20-1307-CFC

Universal Electronics Inc.,

Defendant.

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MEMORANDUM OPINION

August 2, 2021
Wilmington, Delaware



COLM F. CONNOLLY
CHIEF JUDGE

Plaintiff Zycuits IP LLC has sued Defendants Acuity Brands, Inc. and Universal Electronics Inc. for infringement of claim 4 of U.S. Patent No. 6,671,307 (the #307 patent). *Zycuits IP LLC v. Acuity Brands Inc.*, No. 20-1306, D.I. 12; *Zycuits IP LLC v. Universal Electronics Inc.*, No. 20-1307, D.I. 12. Pending before me are Defendants' motions to dismiss pursuant to Federal Rule of Civil Procedure 12(b)(6). No. 20-1306, D.I. 13; No. 20-1307, D.I. 15. Defendants argue I should dismiss Zycuits's complaints because the #307 patent is invalid under 35 U.S.C. § 101 for failing to claim patentable subject matter. Zycuits's actions against Acuity and Universal Electronics are not consolidated, but both motions to dismiss present identical issues. Accordingly, I address both motions in this Memorandum Opinion.

I. BACKGROUND

Zycuits filed complaints against Acuity Brands and Universal Electronics as part of an enforcement campaign asserting the #307 patent. *See, e.g., Zycuits IP LLC v. Wink Labs, Inc.* No. 19-1607, D.I. 1 (Aug. 29, 2019); *Zycuits IP LLC v. IKEA N. Am. Servs., LLC*, No. 21-0299, D.I. 1 (Feb. 26, 2021); *Zycuits IP LLC v. Zen Within, Inc.*, No. 21-0758, D.I. 1 (May 26, 2021). The complaints do not

contain any background allegations about the parties besides jurisdictional facts.

See No. 20-1306, D.I. 12; No. 20-1307, D.I. 12.

The relevant substantive content of the complaints is identical. The #307 patent is titled “Spread-Spectrum High Data Rate System and Method.” The patent describes applying signal codes to blocks of interleaved data for spread-spectrum transmission. #307 patent at 2:25–30. According to the patent’s written description, spread-spectrum transmission was previously accomplished using parallel codes. #307 patent at 1:21–24.

Zyrcuits alleges that Acuity and Universal Electronics infringe claim 4 of the #307 patent. No. 20-1306, D.I. 12; No. 20-1307, D.I. 12. Claim 4 recites

[a] spread-spectrum method improvement for sending data over a communications channel, comprising the steps of:

storing, at a transmitter, N bits of interleaved data as stored data, with N a number of bits in a symbol; selecting, at said transmitter in response to the N bits of stored data, a chip-sequence signal from a plurality of 2^N chip-sequence signals, as an output chip-sequence signal; and

transmitting, at said transmitter, the output chip-sequence signal as a radio wave, at a carrier frequency, over said communications channel, as a spread-spectrum signal.

In other words, claim 4 describes grouping together data that may come from multiple sources, applying a single chip-sequence code to the grouped data, and then transmitting the code by radio wave.

II. LEGAL STANDARDS

A. Stating a Cognizable Claim

To state a claim on which relief can be granted, a complaint must contain “a short and plain statement of the claim showing that the pleader is entitled to relief.” Fed. R. Civ. P. 8(a)(2). Detailed factual allegations are not required, but the complaint must include more than mere “labels and conclusions” or “a formulaic recitation of the elements of a cause of action.” *Bell Atl. Corp. v. Twombly*, 550 U.S. 544, 555 (2007) (citation omitted). The complaint must set forth enough facts, accepted as true, to “state a claim to relief that is plausible on its face.” *Id.* at 570. A claim is facially plausible “when the plaintiff pleads factual content that allows the court to draw the reasonable inference that the defendant is liable for the misconduct alleged.” *Ashcroft v. Iqbal*, 556 U.S. 662, 678 (2009) (citation omitted). Deciding whether a claim is plausible is a “context-specific task that requires the reviewing court to draw on its judicial experience and common sense.” *Id.* at 679 (citation omitted).

When assessing the merits of a Rule 12(b)(6) motion to dismiss, a court must accept as true all factual allegations in the complaint and it must view those facts in the light most favorable to the plaintiff. *See Umland v. Planco Fin. Servs.*, 542 F.3d 59, 64 (3d Cir. 2008); *Schmidt v. Skolas*, 770 F.3d 241, 249 (3d Cir. 2014) (internal quotation marks omitted).

B. Patent-Eligible Subject Matter

Section 101 of the Patent Act defines patent-eligible subject matter. It provides: “Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.” 35 U.S.C. § 101.

There are three judicially-created limitations on the literal words of § 101. The Supreme Court has long held that laws of nature, natural phenomena, and abstract ideas are not patentable subject matter. *Alice Corp. Pty. v. CLS Bank Int'l*, 573 U.S. 208, 216 (2014). These exceptions to patentable subject matter arise from the concern that the monopolization of “these basic tools of scientific and technological work” “might tend to impede innovation more than it would tend to promote it.” *Id.* (internal quotation marks and citations omitted). Abstract ideas include mathematical formulas and calculations. *Gottschalk v. Benson*, 409 U.S. 63, 71–72 (1972).

“[A]n invention is not rendered ineligible for patent [protection] simply because it involves an abstract concept[.]” *Alice*, 573 U.S. at 217. “[A]pplication[s] of such concepts to a new and useful end . . . remain eligible for patent protection.” *Id.* (internal quotation marks and citations omitted). But in order “to transform an unpatentable law of nature [or abstract idea] into a patent-

eligible application of such law [or abstract idea], one must do more than simply state the law of nature [or abstract idea] while adding the words ‘apply it.’” *Mayo Collaborative Servs. v. Prometheus Lab’ys, Inc.*, 566 U.S. 66, 71 (2012) (emphasis omitted).

In *Alice*, the Supreme Court established a two-step framework by which courts are to distinguish patents that claim eligible subject matter under § 101 from patents that do not claim eligible subject matter under § 101. The court must first determine whether the patent’s claims are drawn to a patent-ineligible concept—i.e., are the claims directed to a law of nature, natural phenomenon, or abstract idea? *Alice*, 573 U.S. at 217. If the answer to this question is no, then the patent is not invalid for teaching ineligible subject matter. If the answer to this question is yes, then the court must proceed to step two, where it considers “the elements of each claim both individually and as an ordered combination” to determine if there is an “inventive concept—i.e., an element or combination of elements that is sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself.” *Id.* at 217–18 (alteration in original) (internal quotations and citations omitted).

Issued patents are presumed to be valid, but this presumption is rebuttable. *Microsoft Corp. v. i4i Ltd. Partnership*, 564 U.S. 91, 96 (2011). Subject-matter eligibility is a matter of law, but underlying facts must be shown by clear and

convincing evidence. *Berkheimer v. HP Inc.*, 881 F.3d 1360, 1368 (Fed. Cir. 2018).

III. DISCUSSION

Applying the two-step framework from *Alice*, I find that the #307 patent is invalid under § 101. The #307 patent's claims are directed to the abstract idea of grouping data together with a single code and do not contain any inventive concept.

A. Claim 4 Is Representative

Acuity and Universal Electronics argue, and Zycuits does not dispute, that claim 4 is representative of all the patent's claims. No. 20-1306, D.I. 14 at 9; No. 20-1307, D.I. 16 at 8.

B. *Alice* Step One — Whether the Claims Are Drawn to Patent-Ineligible Subject Matter

I begin by determining whether the claims at issue are directed to a patent-ineligible concept. *Alice*, 573 U.S. at 217. “[C]laims are considered in their entirety [at step one] to ascertain whether their character as a whole is directed to excluded subject matter.” *Internet Pats. Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1346 (Fed. Cir. 2015).

“The Supreme Court has not established a definitive rule to determine what constitutes an ‘abstract idea’ sufficient to satisfy the first step of the *Mayo/Alice* inquiry.” *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1334 (Fed. Cir. 2016)

(citation omitted). The Court has recognized, however, that fundamental economic practices, methods of organizing human activity, and mathematical formulae are abstract ideas. *See Bilski v. Kappos*, 561 U.S. 593, 611 (2010) (“fundamental economic practice” of hedging is unpatentable abstract idea); *Alice*, 573 U.S. at 220–21 (“organizing human activity” of intermediated settlement falls “squarely within realm of ‘abstract ideas’”); *Gottschalk*, 409 U.S. at 68, 71–72 (mathematical algorithm to convert binary-coded decimal numerals into pure binary code is unpatentable abstract idea); *Parker v. Flook*, 437 U.S. 584, 594–95 (1978) (mathematical formula for computing “alarm limits” in a catalytic conversion process is unpatentable abstract idea).

To determine whether claims are directed to an abstract idea courts generally “compare the claims at issue to those claims already found to be directed to an abstract idea in previous cases.” *Enfish*, 822 F.3d at 1334. The Federal Circuit has also instructed district courts to consider as part of *Alice*’s step one whether the claims “focus on a specific means or method that improves the relevant technology or are instead directed to a result or effect that itself is the abstract idea and merely invoke generic processes and machinery.” *McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299, 1314 (Fed. Cir. 2016) (citing *Enfish*, 822 F.3d at 1336).

Applying these standards, I find that the #307 patent is directed to the abstract idea of grouping spread-spectrum data together with a single code instead

of with parallel codes. The Federal Circuit has explained repeatedly that claims directed to the manipulation of data are abstract absent additional features, because “information as such is an intangible.” *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016); *see also, e.g., In re Bd. of Trs. of Leland Stanford Junior Univ.*, 989 F.3d 1367, 1372 (Fed. Cir. 2021) (“[M]athematical algorithms for performing calculations, without more, are patent ineligible under § 101”); *iLife Techs., Inc. v. Nintendo of Am., Inc.*, 839 Fed. App’x 534, 537 (Fed. Cir. 2021) (“We have routinely held that claims directed to gathering and processing data are directed to an abstract idea.”); *Two-Way Media Ltd. v. Comcast Cable Commc’ns, LLC*, 874 F.3d 1329, 1337 (Fed. Cir. 2017) (claims focused on sending and monitoring information are directed to an abstract idea).

Representative claim 4 is directed to the manipulation of information: It requires “storing” specified data, “selecting” a signal based on the stored data, and then “transmitting” the signal. #307 patent at claim 4. Zycuits repeatedly refers to the content of claim 4 as an “algorithm.” No. 20-1306, D.I. 16 at 5, 6, 9. “A process that start[s] with data, add[s] an algorithm, and end[s] with a new form of data [is] directed to an abstract idea.” *RecogniCorp, LLC v. Nintendo Co., Ltd.*, 855 F.3d 1322, 1327 (Fed. Cir. 2017) (citing *Digitech Image Techs., LLC v. Elecs. for Imaging, Inc.*, 758 F.3d 1344 (Fed. Cir. 2014)). This is exactly what is recited in claim 4.

Zycruits argues that claim 4 teaches a technical solution to the problem of spread-spectrum signal transmission without using parallel codes. No. 20-1306, D.I. 14 at 7. According to Zycruits, the #307 patent teaches “particular techniques—with limiting detail—to solve the problem of transmitting spread-spectrum signals without using parallel codes.” No. 20-1307, D.I. 19 at 7.

The Federal Circuit has explained that claims directed to forms of data collection and manipulation are not directed to an abstract idea if they offer technical improvements to computer technology. *Compare Smart Sys. Innovations, LLC v. Chi. Transit Auth.*, 873 F.3d 1364, 1372 (Fed. Cir. 2017) (“We have determined that claims directed to the collection, storage, and recognition of data are directed to an abstract idea.”) *with Enfish*, 822 F.3d at 1336 (finding claims subject-matter eligible when directed to the “improvement to computer functionality itself”). Zycruits relies on the *Enfish* line of cases to argue that the #307 patent is subject-matter eligible since, according to Zycruits, it describes specific techniques with limiting detail. No. 20-1306, D.I. 16 at 4, 7.

Claim 4, however, does not provide a technical solution to a technical problem. Indeed, Zycruits fails to identify in its briefing any particular technical solution disclosed in the #307 patent. No. 20-1306, D.I. 16 at 7. Instead, Zycruits points to unexplained block quotes from the patent and the unsupported, conclusory statement in the Complaints that “[c]laim 4 addresses the problem of

interference and output signal distortion with a technical solution.” No. 20-1306, D.I. 12 ¶ 10; No. 20-1307, D.I. 12¶ 10.

This is not surprising, because the language of claim 4 lacks technical specificity. The step of storing “N bits of interleaved data as stored data, with N a number of bits in a symbol” could simply be summarized as “storing data as stored data.” #307 patent at claim 4 (10:20–22). The selection step teaches “selecting . . . a chip-sequence signal from a plurality of 2^N chip-sequence signals,” but provides no details about how this selection should be made. #307 patent at claim 4 (10:22–25). The third and final step requires nothing more than “transmitting . . . the output chip-sequence signal as a radio wave, at a carrier frequency, over said communications channel, as a spread-spectrum signal”—i.e., transmitting data in a known way. The “how” information Zycuits points to only confirms that the storing, selecting, and transmitting steps are exactly what they first appear to be—i.e., the abstract manipulation of information.

Claim 4 may use technical jargon, but that does not mean it teaches a technical solution. *See Ericsson Inc. v. TCL Commc ’n Tech. Holdings Ltd.*, 955 F.3d 1317, 1326 (Fed. Cir. 2020) (“Although written in technical jargon, a close analysis of the claims reveals that they require nothing more than this abstract idea.”), *cert. denied sub nom. Ericsson Inc. v. TCL Commc ’n*, 209 L. Ed. 2d 752 (U.S. 2021). And it may be true that the #307 patent is directed to a useful idea,

but a patent is still invalid for lack of subject-matter eligibility when it teaches a useful abstract idea. *See Secured Mail Sols. LLC v. Universal Wilde, Inc.*, 873 F.3d 905, 910 (Fed. Cir. 2017) (“The fact that an [idea] can be used to make a process more efficient, however, does not necessarily render an abstract idea less abstract.”).

In short, representative claim 4 is directed to the idea of applying a signal code to a block of interleaved data (thereby avoiding parallel codes), and the claim does not provide any guidance on *how* to accomplish this idea. Therefore the #307 patent is directed to an abstract idea.

C. Inventive Concept

Having found that the #307 patent is directed to an abstract idea, I must determine whether its claims contain an “inventive concept” sufficient to ‘transform’ the claimed abstract idea into a patent-eligible application.” *Alice*, 573 U.S. at 221 (quoting *Mayo*, 566 U.S. at 77). It is insufficient for the patent to “simply state the law of nature while adding the words ‘apply it.’” *Mayo*, 566 U.S. at 72. A claim directed towards an abstract idea must include “additional features” to ensure ‘that the [claim] is more than a drafting effort designed to monopolize the [abstract idea].’” *Alice*, 573 U.S. at 221 (alterations in original) (quoting *Mayo*, 566 U.S. at 77). No such additional features exist here, and I find that, whether considered individually or as an ordered combination, the claim

elements of the #307 patent do not “transform” the claimed abstract idea into patent-eligible subject matter.

Claim 4 simply takes an abstract idea for transmitting data and implements it “at a transmitter” as a “radio wave” over a “communications channel.” #307 patent at claim 4 (10:20, 28–29). The invocation of generic communication technology does not provide an inventive concept. *See Alice*, 573 U.S. at 222; *SAP Am.*, 898 F.3d at 1170 (carrying out improved mathematical operations on a generic computer is not inventive); *Elec. Power*, 830 F.3d at 1355 (holding the claims at issue did not contain an inventive step because they did “not require any nonconventional computer, network, or display components”).

Zyrcuits argues that there is a disputed factual issue about whether claim 4 recites “well-understood, routine, and conventional activities.” No. 20-1306, D.I. 16 at 8 (citing *Berkheimer*, 881 F.3d at 1369 and *Cellspin Soft, Inc. v. Fitbit, Inc.*, 927 F.3d 1306, 1317 (Fed. Cir. 2019), *cert. denied sub nom. Garmin USA, Inc. v. Cellspin Soft, Inc.*, 140 S. Ct. 907 (2020)). But Zyrcuits cannot artificially create a dispute of fact by making the conclusory allegation that “claim 4 embodies an inventive concept,” No. 20-1306, D.I. 12 ¶ 12; No. 20-1307, D.I. 12 ¶ 12, when the #307 patent itself resolves any possible factual issues. Figures 1 and 2 of the patents show a prior art system that includes a generic transmitter and a communication channel. #307 patent at 1:30–50, figs. 1, 2. The patent also

explains that the claimed process can be implemented on a “general purpose processor.” #307 patent at 3:52. Implementing an abstract idea on a general purpose processor or a generic transmitter does not constitute an inventive step. *Alice*, 573 U.S. at 222.

In arguing that the #307 patent is subject-matter eligible, Zycuits asserts that the claimed process was unconventional. But the alleged unconventional process is the abstract idea to which claim 4 is directed, and the abstract idea itself cannot provide the inventive feature required at step two. *See Mayo*, 566 U.S. at 72–73 (explaining the inventive concept must be “significantly more” than the abstract idea itself); *BSG Tech LLC v. Buyseasons, Inc.*, 899 F.3d 1281, 1290 (Fed. Cir. 2018) (“a claimed invention’s use of the ineligible concept to which it is directed cannot supply the inventive concept”); *Cellspin Soft, Inc.*, 927 F.3d at 1316 (“An inventive concept reflects something more than the application of an abstract idea using well-understood, routine, and conventional activities previously known to the industry.” (internal quotation marks and citation omitted)). The expert declaration of Dr. Schilling submitted by Zycuits in opposition to the pending motion confirms this conclusion. The inventive concept identified by Dr. Schilling—i.e., the method for spread-spectrum data transmission without parallel codes—is the abstract idea to which claim 4 is directed. *See* No. 20-1306, D.I. 12, Ex. 3 ¶ 18. The #307 patent lacks any additional features that would make the

claims eligible under § 101, because it simply applies an abstract idea using conventional technology.

IV. CONCLUSION

For the reasons stated above, I find that the #307 patent is invalid under § 101 for lack of subject-matter eligibility. Accordingly, I will grant Acuity Brands, Inc.'s Motion to Dismiss Plaintiff's First Amended Complaint for Failure to State a Claim, No. 20-1306, D.I. 13, and Universal Electronics Inc.'s Renewed Rule 12(b)(6) Motion to Dismiss for Failure to State a Claim, No. 20-1307, D.I. 15.

The Court will issue Orders consistent with this Memorandum Opinion.